UNIT 3: PRINCIPLES OF RISK MANAGEMENT

OBJECTIVES

The students will:

- Discuss the classic Risk Management Model.
- Describe the five components of the risk management process: risk identification, risk evaluation, prioritization of risks/threats, risk control measures, and monitoring of control measures.
- Describe pre-emergency risk management, including Risk Management Plans and how Risk Management Plans relate to the Incident Safety Officer's (ISO's) role.
- Using scenarios, apply the risk management process to a variety of incidents.

INTRODUCTION

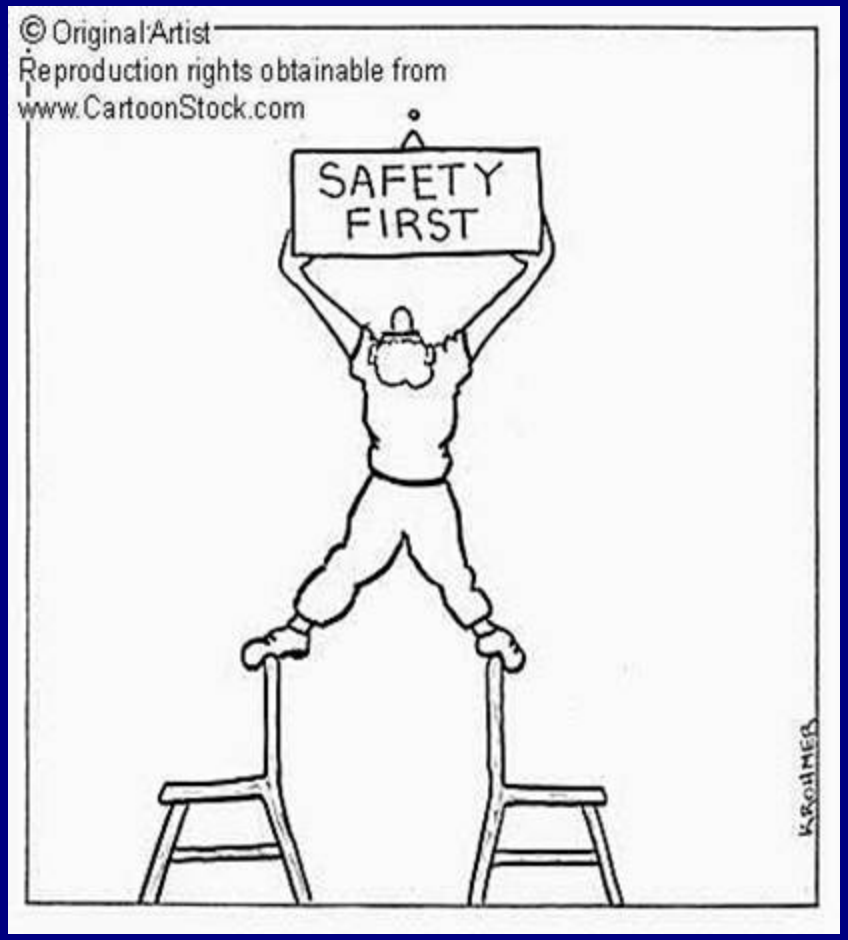
- Communities, including fire, emergency medical services (EMS), and law enforcement agencies are assessing risks and threats around them.
- Knowledge of these threats can be used in strategic planning efforts.
- Using this information, risk management protects both responders and the public.
- Same principles can be applied at an incident or event.

CONSEQUENCES CAN BE LOWERED

If:

- **Standard Operating Procedures (SOPs) and standards of safety are known and applied.**
- **Equipment and tactical approaches are tested and used appropriately.**
- **Responders gain and maintain situational awareness.**
- **Responders keep safety as the first priority.**

BASIC ROLE OF THE INCIDENT SAFETY OFFICER



The person who translates Risk Management Plans into strategies, tactics, and behavior during an incident

APPLY THE FIVE-STEP RISK MANAGEMENT PROCESS

1. Identification of potential risks or threats
2. Evaluation of probability and the consequences to the public and responders
3. Prioritization of risks and threats
4. Implementation of control measures
5. Monitoring of control measures

RISK IDENTIFICATION

- What might go wrong?
- It's simple if risk is obvious.
- Make an inventory of what could happen.
- Seek input from others.

RISK EVALUATION

Involves two terms:

- Frequency--likelihood of occurrence.
  - Has this occurred repeatedly?
- Severity--measured by factors such as:
  - Loss of life.
  - Number of injuries.
  - Number of serious injuries.
  - Degree of public health concerns.
  - Extent of environmental damage.

ADDITIONAL CONSEQUENCES

- Time away from work
- Cost of damage
- Cost of and time for repair or replacement
- Disruption of service
- Impact on organizations and their legal costs

10 Rules of Engagement for Structural Firefighting

- Acceptability of Risk

1. No Building or Property is Worth the Life of a Firefighter

10 Rules of Engagement for Structural Firefighting

- Acceptability of Risk

2. All Interior Firefighting Involves an Inherent Risk

- Risk Minimized by:
  - SOP's / Training / Education
  - Structured Command
  - Discipline
  - Recognition of Hazards
  - Accountability System
  - Tactical Reserve
- DON'T BE AFRAID TO CALL MORE PEOPLE!!!

10 Rules of Engagement for Structural Firefighting

- Acceptability of Risk

3. Some Risk is Acceptable in a Measured and Controlled Manner

- Monitoring Risk Allows for a Continuous Evaluation of Operational Tenability

10 Rules of Engagement for Structural Firefighting

- Acceptability of Risk

4. NO Level of Risk is Acceptable Where There is NO Potential to Save Lives or Save Property

- Fully Involved Buildings are Usually not the Place where Live Victims Will be Found

10 Rules of Engagement for Structural Firefighting

- **Acceptability of Risk**

5.Firefighters Shall NOT be Committed to Interior Offensive Firefighting Operations in Abandoned or Derelict Buildings

- **Consider presence of Squatters**
  - **IC Must decide on case-by-case basis**
- **Building Marking Systems Minimize Amount of Unknown Hazards**

Vacant Bldgs

15% of all LODD's

WHY SO HIGH??

Vacant Buildings

- Open them up before entering
- Strict control
- Multiple means of egress
- Pessimistic approach
- Don’t risk your neck tonite for something that will be put in a dumpster tomorrow

10 Rules of Engagement for Structural Firefighting

- **Risk Assessment**

6. **All Feasible Measures Shall be Taken to Limit or Avoid Risks Through Risk Assessment by a Qualified Officer**

- **ALL Officers and Firefighters MUST Make Safety Their Business**
- **Unsafe Actions and Conditions are Absolutely UNACCEPTBALE**

10 Rules of Engagement for Structural Firefighting

- **Risk Assessment**

7. **It is the Responsibility of the I.C. to Evaluate the Level of Risk in Every Situation**
- **The IC's Decision-Making Process is only as Good as the Info Being Received from Operational Areas**
  - **Informed Decisions are Safe Decisions**
- **GET REPORTS**

10 Rules of Engagement for Structural Firefighting

- **Risk Assessment**

8. **Risk Assessment is a Continuous Process for the Entire Duration of the Incident**

- **Essentially Size-Up**
- **Consider the Fireground Extremely Hazardous from Arrival to Termination**
- **If You Can't Make Things Better, At Least Make Them Safe**

10 Rules of Engagement for Structural Firefighting

- **Risk Assessment**

9. **If Conditions Change and Risk Increases, Change Strategy and Tactics**

- **Look for Strategy Change Cues.**
- **DON'T Wait Change Strategy**
  - **You can Always Change Back**
  - **Being out of a Building 5 Minutes Early is Better than 5 Seconds too Late**

10 Rules of Engagement for Structural Firefighting

- **Risk Assessment**

10. No Building or Property is Worth the Life of a Firefighter

–Just in case you missed it the first time

- **SET THE EXAMPLE**
- **DON'T BE THE EXAMPLE**

Risk Management

- Boston Globe:
  - –52 fires that killed 80 FF's from 1997 to 2004
  - –In only 14 of the 52 was there a suspicion of a trapped occupant.
  - –From that number, only 6 were in the building upon FD arrival.
  - –No civilians fatalities reported in any of the 80 LODD's

Risk Management

- If what you are doing or are about to assign will have no favorable impact on the operation, consider if it should be assigned in the first place
- Know when to say Uncle

video

video

ESTABLISHING PRIORITIES

- Is there a high probability of occurrence?
- Will there be serious consequences?
- This combination would be a high priority.
- The XY Graph.

RISK CONTROL MEASURES

Definition: Any solution used for the elimination or reduction of real or potential hazards or risks through the implementation of controls.

RISK AVOIDANCE

- Best choice is always risk avoidance!
- Example of risk avoidance--sharps containers.

VIDEO

RISK CONTROL MEASURES (cont'd)

- Most common method used for risk management
- Can reduce likelihood of occurrence
- Can mitigate severity
- SOPs, change in strategies and tactics, use of different personal protective equipment (PPE), other measures

RISK TRANSFER

- Difficult to use in responder situations.
- It is the job of emergency services personnel to respond--risk cannot be transferred.
- Question--Is there someone else better qualified?
  - Hazardous materials.
  - Electrical hazards.
  - Fuel spills.

RISK MONITORING

- Once control measures have been implemented, they need to be evaluated to measure effectiveness.
- Risk management reduces inherent risks, lowers the frequency, and lowers the consequences.

NATIONAL FIRE PROTECTION ASSOCIATION 1500® --ORGANIZATIONAL RISK

- "The process of planning, organizing, directing, and controlling the resources and activities of an organization in order to minimize detrimental effects on that organization." (NFPA 1500®)
- The primary focus of internal, or organizational risk management is the safety and health of your organization's personnel.
- Under the National Incident Management System (NIMS)/Incident Command Systems (ICS), the Safety Officer on the incident is to be focused on all safety matters for the public and for responders.

PRE-EMERGENCY RISK MANAGEMENT

- Looks at activities that take place prior to any emergency
- Prepares for and establishes control measures, like SOPs, anticipating problems
- Should prepare toolkits that will be available to assist an ISO

PRE-EMERGENCY RISK MANAGEMENT (cont'd)

Necessary components:

- A written Risk Management Plan
- Occupational Safety and Health Program
- A Risk Management Toolbox

ELEMENTS IMPORTANT TO THE INCIDENT SAFETY OFFICER

- Incident Command models and multiagency/ multijurisdictional agreements
- Dispatch procedures
- Physical fitness of personnel
- Training and qualifications of responders
- Vehicle operations
- Hazardous materials
- Infectious disease
- Radio communications agreements

RISK MANAGEMENT TOOLBOX

Key elements:

- ICS
- SOPs/Standard Operating Guidelines (SOGs)
- PPE and clothing
- Apparatus and equipment
- Personnel accountability system
- Others

RECOGNITION-PRIMED DECISION MAKING (NOW CALLED NATURALISTIC DECISION MAKING)

- The ISO should look for incident safety cues.
- Recognize that responders follow patterns based on cues too, but they may not see the cues the same way, or pick the same patterns to guide their actions.
- Low-frequency, high-consequence events produce the most risk.
- The ISO is critical to maintaining situational awareness and operational safety.

SUMMARY

- To be successful, risk management principles should be used by Incident Command and Command Staff.
- Risk Management Plans should result in better prepared supervisors and responders.
- Risk management principles can be applied on scene by the ISO.

Activity 3.1
Risk Management Plan for a Specific Risk